

REMARKS/ARGUMENTS

Claims 1–40 are pending in the application. Claims 1–25 were rejected. Claims 26–40 were withdrawn. In this Amendment and Response, claims 1, 4, 6–10, 12, 14–18, and 21–25 are amended, while claims 19, 20, and 26–40 have been canceled. No new matter has been added by the amendment.

I. Claim Objections

Claims 6–8, 10, 12 (and thus its dependent claim 13), and 14–18 were objected to. Applicants have amended the offending claims to include the corrections indicated by the Examiner.

II. Claim rejections under 35 U.S.C. § 102(b)

Claims 1–9 and 11–23 were rejected under 35 U.S.C. § 102(b) as being anticipated by Parce et al. (US 5,942,443). This rejection is respectfully traversed. “[F]or anticipation under 35 U.S.C. § 102, a single reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present.” See MPEP § 706.02. “The identical invention must be shown in as complete detail as is contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, USPQ2d 1913, 1920 (Fed. Cir. 1989).

Parce ‘443 does not show an invention identical to that claimed by Applicants. Parce ‘443 teaches “[m]icrofluidic devices and methods that are useful for performing high-throughput screening assays.” See the abstract of Parce ‘443. Applicants, on the other hand, disclose “methods of optimizing microfluidic assays, e.g., high throughput assays.” Such assays “are typically designed and optimized in a relatively lower throughput manner....” See Applicants’ specification, page 2, lines 2–12. As claimed by applicants, one method of optimizing microfluidic assays involves flowing fluid in a non-sipper microfluidic device to emulate a fluid flow profile in a sipper device that includes an external capillary. Applicant’s independent claim 1 has been amended to more particularly point out and distinctly claim this

aspect of Applicants' invention. Amended claim 1 now includes the limitations of claims 19 and 20, which have been canceled. Thus, no new matter has been added with the amendment.

On page 8, lines 7–9, Applicants state the term “emulate” is used to refer to “imitation of a sipper device fluid flow profile in a planar device. The planar emulator devices of the invention emulate, e.g., imitate, equal, simulate, copy, or the like, one or more flow characteristic of a sipper device....”

The Examiner cites column 9, lines 56–65, of Parce '443 as teaching a non-sipper microfluidic device that “is used to imitate, equal or simulate flow characteristics of the sipper device in column 9, lines 29-30.” The Examiner extrapolates this conclusion from the device described in column 9, lines 56–65, being “an alternative to ... the microfluidic device (i.e., the sipper device) described in column 9, lines 29-30.” Applicants respectfully disagree that such an extrapolation is appropriate.

“Alternative” is defined in *Merriam-Webster's Online Dictionary, 10th Edition*, as “offering or expressing a choice.” For example, in powering an automobile, an electric engine may be an alternative to a gasoline engine. Taking the train may be an alternative to driving one's own car as a method of arriving at work. However, the two engines are significantly different, and the two methods of commuting involve entirely different steps. These alternatives are not intended to imitate, equal, simulate, or copy. They are simply available choices, whose appeal may depend entirely on the circumstances of the individual making the choice. An individual may consider a vehicle with a low emissions electric engine to be far superior to a vehicle with a high emissions gasoline engine (i.e., the alternatives are not equal) and would choose to drive an electric vehicle to work. However, if the individual cannot afford the added cost of an electric engine or cannot afford to own any vehicle, the individual may choose the alternative of taking the train. Another individual might prefer to take the train, enjoying the opportunity to read during the commute.

Thus, teaching that a second microfluidic device is an alternative to a first microfluidic device does not teach either explicitly or impliedly that the second device emulates (i.e., imitates, equals, simulates, or copies) the first device. By the same token, Parce '443 does not teach flowing a sample via a capillary emulator channel that simulates the external capillary of a sipper device. None of the channels taught by Parce '443 is described as emulating a capillary. As a result, Parce '443 does not teach all of the limitations of Applicants' amended

independent claim 1. Withdrawal of the rejection of claim 1 under U.S.C. § 102(b) is, therefore, respectfully requested.

Claims 2–9, 11–18, and 21–23 depend directly or indirectly from amended independent claim 1. Therefore, Applicants respectfully submit that these dependent claims are allowable for at least the same reasons as set forth herein with respect to amended independent claim 1. Withdrawal of the rejection of claims 2–9, 11–18, and 21–23 under U.S.C. § 102(e) as being anticipated by Zanzucchi et al. (US 5,585,069) is also respectfully requested.

V. Claim rejections under 35 U.S.C. § 103(a)

Claims 10, 24, and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Parce et al. (US 5,942,443). This rejection is traversed. To warrant rejection under 35 U.S.C. § 103(a), all the claim limitations must be taught or suggested by the prior art. See MPEP § 2142.

As demonstrated above, Parce ‘443 does not teach using one device to emulate the flow pattern of another device. The distinction between the term “emulate” as used by Applicants and the term “alternative” as cited by the Examiner has been discussed above. Thus, Parce ‘443 does not teach a method of flowing fluid in a non-sipper microfluidic device to emulate a fluid flow profile in a microfluidic device comprising an external capillary (i.e., a sipper device). Neither does Parce ‘443 teach flowing a sample via a capillary emulator channel. As a result, Parce ‘443 neither teaches nor suggests all the claim limitations of Applicants’ amended independent claim 1.

Claims 10, 24, and 25 depend directly or indirectly from amended independent claim 1. Any claim depending from a nonobvious claim is also nonobvious. See MPEP § 2143.03 and *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, dependent claims 10, 24, and 25 are nonobvious. Withdrawal of the rejections of these dependent claims as being unpatentable over Parce ‘443 is therefore respectfully requested.

Conclusion

For the foregoing reasons, Applicants believe all the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned attorney.

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Signed: _____

